

## A HEAT SINK WITH A CUTOUT

Darin P. Smedberg

## ABSTRACT

- 5 A heat sink extends beyond the outer boundaries of a component cooled by the heat sink. In one embodiment, the heat sink may have a cutout shaped and located so that a protruding portion of a clip can extend through the cutout from one surface of the heat sink and mechanically fasten the component to another surface of the heat sink. There may be more than one cutout. Heat transfer values can be optimized by adjusting the
- 10 number and the location of the cutouts and the size of the heat sink relative to the component and the fastening mechanism (e.g., a clip). In another embodiment, the clip that extends through the cutout holds the heat sink against a motherboard, pressing against a component located between the heat sink and the motherboard.

10071958-03654